

American Philosophical Society and the University of Pennsylvania. Many botanists may be pleasantly surprised to learn that the PH collections—well known as an extraordinarily rich source of early North American specimens—include so much Old World material (with some even from Linnaeus himself).

I am unable to say how many specimens are indexed. An advertisement states that there are 454 microfiche each with a maximum of 60 plants. Slightly less than 300 of the fiche cover the herbarium of "types and early authenticating specimens"—which are said to number about 40,000 vascular plants. Perhaps less than half of these *are* photographed—or does the apparent contradiction in numbers merely mean there is an average of two collections per photo?—*Edward G. Voss, Herbarium, University of Michigan, Ann Arbor, MI, 48109, U.S.A.*

METHODS IN PLANT VIROLOGY. 1984. Hill, Stephen A. *Methods in Plant Pathology* Vol. 1. Blackwell Scientific Publications, Ltd., Oxford, London, Edinburgh, Boston, Palo Alto, Melbourne. 167 pp. + viii. Paper, \$24.00.

The volume concentrates on the methods for virus diagnosis. The beginning student of plant virology should learn the basic techniques and gradually evolve into the more sophisticated techniques. The techniques are sequential and may provide a route to virus characterization. The Chapters are 1) Introduction, 2) Histological and other Basic Methods, 3) Basic Virus Characterization and Storage, 4) Transmission Tests (Sap, graft, and vector transmission), 5) Serological Techniques (Precipitation and agglutination tests, labelled antibody techniques), 6) Electron Microscopy (Quick methods for sample preparation and immuno electron microscopy).

By grouping the basic methods of characterization into one volume, the author has produced a valuable handbook that not only describes the concept of each method but also lists the materials required and proceeds in a step by step cookbook fashion. The text was written for senior undergraduates and researchers in plant pathology and plant virology and is recommended not only for its total contents but for the brief, concise individual nature of each recipe.—*Wm. F. Mabler, Southern Methodist University Herbarium, Dallas, TX 75275, U.S.A.*

INTRODUCTION TO MODERN MYCOLOGY. 1984. Deacon, J. W. *Basic Microbiology Series* Vol. 7. Blackwell Scientific Publications, Ltd., Oxford, London, Edinburgh, Boston, Palo Alto, Melbourne. 167 pp. + viii. Paper, \$24.00.

The text is an introduction to the biology of the fungi and deals with their structure, function, and some aspects of their life history. The Chapters include topics on structure and fine structure, growth, differentiation, nutrition, metabolism, environmental conditions for growth, genetic systems, spore dispersal, the role of fungi as saprophytes and parasites (plant and animal), and on prevention and control of fungal growth.